

REMARKS

This Amendment is being filed simultaneously with a Request for Continued Examination. This Amendment serves as a submission under 37 C.F.R. §1.114.

Claims 4-5, 9-11, 28 and 31-34 are pending in this application. By this Amendment, each of independent claims 4 and 28 are amended.

The Office Action (dated March 19, 2007) rejects claims 4-5, 9-11, 28 and 31-34 under 35 U.S.C. §103(a) over U.S. Patent 6,496,194 to Mikoshiba et al. (hereafter Mikoshiba) in view of U.S. Patent Publication 2001-083926 to Okomoto et al. (hereafter Okomoto). The rejection is respectfully traversed with respect to the pending claims.

Applicants maintain all of the arguments set forth in the responses filed June 19, 2007 and January 19, 2007. Further, in response to an issue set forth on page 2 of the Advisory Action, each of independent claims 4 and 28 are amended to further define the claimed false contour generation region.

Independent claim 4 recites detecting false contour generation regions from each of first video data for a previous frame period and second video data for a current frame period, each false contour generation region including a pixel corresponding to a gray scale generating a false contour and pixels corresponding to adjacent gray scales. See also independent claim 28.

The Office Action (on pages 2 and 5-6) asserts that Mikoshiba's Abstract, FIGs. 15 to 18B and col. 15, lines 60-67 teaches detecting each false contour generation region. However, Mikoshiba's FIGs. 15 to 18B discloses superimposing an equalizing pulse EPA on a source

signal of each of the pixels G, H and I that may cause problems such as a dark emitting part DP due to a gray level change from 127 to 128. See Mikoshiba's col. 13, line 36-col. 15, line 19 and FIGs. 17A and 18A.

Mikoshiba does not teach or suggest detecting false contour generation regions from each of first video data and second video data, each false contour generation region including a pixel corresponding to a gray scale generating a false contour and pixels corresponding to adjacent gray scales, as recited in independent claims 4 and 28. The Advisory Action previously stated that these features were not recited in the rejected claims. However, these features are now clearly recited. That is, false contour generation regions include a pixel corresponding to a gray scale generating the false contour and pixels corresponding to adjacent gray scales to the gray scale, as recited in independent claims 4 and 28. See, for example, paragraph [0065] of the present specification. Mikoshiba discloses superimposing an equalizing pulse on a source signal of each of pixels that may cause problems. Applicants respectfully submit that false contour generation pixels and false contour generation regions are different. Therefore, applicants respectfully disagree with the assertion in the Office Action that "false contour generation pixels" are "false contour generation regions."

In summary, Mikoshiba does not teach or suggest detecting false contour generation regions from each of first video data for a previous frame period and a second video data for a current frame period, each false contour generation region including a pixel corresponding to a

gray scale generating a false contour and pixels corresponding to adjacent gray scales, as recited in independent claims 4 and 28. Okomoto does not teach or suggest these missing features.

Independent claim 4 also recites extracting a motion information from the detected false contour generation regions of the first video data and the second video data. See also independent claim 28 reciting determining motion information from the false contour generation regions of the first video data and the second video data.

The Office Action (on pages 3 and 6-7) states that the comparing and outputting steps of Mikoshiba's col. 12, lines 45-55 and Fig. 14 corresponds to the claimed extracting a motion information. However, Mikoshiba discloses comparing two successive frames and outputting +1,-1 or 0 for a pixel depending on whether the bit data was changed. In other words, Mikoshiba only discloses detecting changes in bit data on a pixel-by-pixel basis. The detecting of changes in bit data on a pixel-by-pixel basis does not teach or suggest extracting a motion information from the detected false contour generation region. Mikoshiba does not suggest detected false contour generation regions or extracting a motion information from the detected false contour generation regions. Thus, Mikoshiba does not teach or suggest extracting a motion information from the detected false contour generation regions (as recited in independent claim 4) or determining motion information from the detected false contour generation regions (as recited in independent claim 28). Okomoto does not teach or suggest these missing features.

Independent claim 4 further recites setting a compensation value based on a velocity value and a size of the gray scale from the motion information. The Office Action (on page 3)

cites Mikoshiba's col. 16, lines 50-55 and col. 36, lines 45-50 for these features. However, Mikoshiba's col. 16, lines 50-55 only discloses that when a gray scale change is smooth, correct motion compensation is possible; however, in the case of a fine pattern, inability to reduce disturbances sufficiently may result. The Advisory Action also states that the cited section discloses that compensation is based on the moving speed. However, the cited section does not state these alleged features of compensation being based on moving speed. The cited sections of Mikoshiba do not teach or suggest setting a compensation value based on a velocity value (and a size of the gray scale) from the motion information.

The Advisory Action states that col. 36, lines 45-50 teach that reducing of half tone disturbance is made for moving images at various speeds and directions. However, Mikoshiba's col. 36, lines 45-50 only discloses that a halftone display method (of Mikoshiba) can alleviate a problem of moving-image false contours in video for moving images moving at various speeds and in various directions. Alleviating the problem of moving-image false contours in video for moving images moving at various speeds and in various directions does not teach or suggest adaptively setting a compensation value based on the velocity value according to the image moving velocity. In summary, Mikoshiba does not teach or suggest setting a compensation value based on the velocity value (and a size of the gray scale) from the motion information.

For at least the reasons set forth above, Mikoshiba does not teach or suggest all the features of independent claims 4 and 28 (as alleged in the Office Action). Okomoto does not teach or suggest the features of independent claims 4 and 28 missing from Mikoshiba. Thus,

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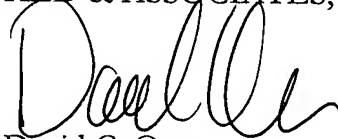
each of independent claims 4 and 28 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 4-5, 9-11, 28 and 31-34 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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